Welch Allyn®

Kreativ

Kompressor

User's Guide

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1. Safety

Warnings

The dentist, staff, and patient should always wear *protective eye equipment* to avoid corneal abrasion or irritation if particles are deflected into the eye.

Failure to remove the shipping cap and replace it with the muffler can damage the compressor.

Connect the Compressor only to a *properly grounded electrical outlet*.

If the Compressor is dropped or tipped, check it carefully before use.

Always *remove electrical power* from the compressor before removing the side panels.

Safety Labels

~	Alternating current
⏚	Ground
⚠	Attention, refer to accompanying manual
○	Power Off
|	Power On
	Type B equipment (defines the degree of protection against electrical shock)
	Footswitch
	Remote

Cautions

Do not attempt to service the unit beyond those items described on page 7, *Maintenance*. Call an authorized Welch Allyn / Kreativ service representative for instructions.

Do not substitute non-Welch Allyn / Kreativ materials or accessories. Use of materials or accessories supplied by other manufacturers may result in damage to the unit and will void the factory warranty.

The Mach 6/7/8 air abrasion systems require *clean, dry air*. The compressor will provide this quality of air if it is properly maintained.

Sound clinical judgment, common sense and proper training are essential to the successful use of this unit to provide safe and efficient patient care.

Failure to remove the muffler shipping cap from the compressor and replacing it with the muffler can damage the compressor (see page 4).

2. System Overview

The Welch Allyn / Kreativ Kompressor is a self contained, roll around system designed to supply compressed air to Welch Allyn Kreativ air abrasion units (Mach 6/7/8).

This manual should be thoroughly reviewed before installing and/or using the compressor. Please call Welch Allyn / Kreativ or their representative if you need additional information regarding installation, operation, or service of the unit.

3. System Unpacking, Setup, and Check-out

Unpacking

Remove the compressor from the shipping carton. The following parts should be included:

- The compressor (with wheels attached)
- Accessory kit (power cord, oil, tool kit)
- Accessory bag (attached to compressor motor)

Compliance

The equipment has been tested and found to comply with the limits for a Class B, Group 1 device pursuant to EN60601-1-2. This equipment generates radio frequency energy that may interfere with other equipment. If this equipment is suspected of interfering with other equipment, this can be verified by turning the equipment off and on. If this equipment is interfering with other equipment,

- Increase separation between the devices.
- Connect the devices to different AC outlets.

- Contact Welch/Allyn / Kreativ.

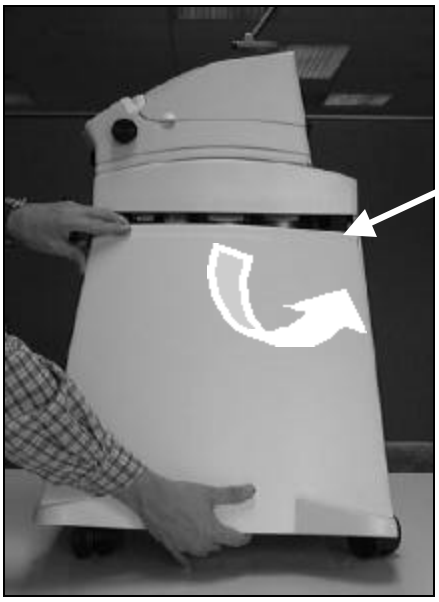
Removing the Side Panels

Both side panels are removable to provide access to the inside of the compressor.

Warning: Remove electrical power from the compressor before removing the side panels.

Each side panel is held on by a single Allen bolt located on the bottom of the compressor near the center of the unit.

1. Insert the Allen Wrench (included) into the bolt and rotate it counter-clockwise to remove it.



2. Grab the panel at the bottom and pull it *out and down* to release the top lip of the panel.

Reinstalling the Side Panels

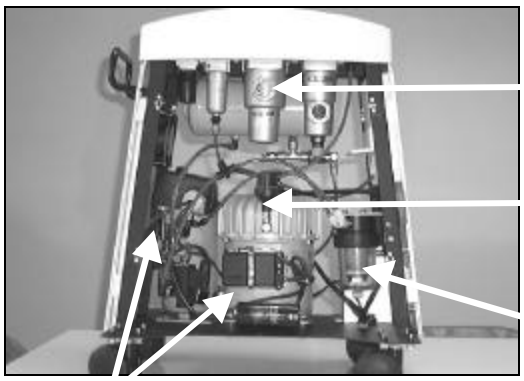
Push the panel *up and in* to seat the top lip.

1. Press the panel in to snap it in place.
2. Insert the screw and tighten it with the Allen wrench.

Visual Inspection

When the side panels are removed, check to see that all of the hoses are connected and that none of them are loose.

Make sure there is no oil spilled inside the unit. If oil is spilled, call Welch Allyn / Kreativ for service.



Muffler Cap

Remove the Shipping Cap

The compressor is shipped with a cap where the muffler will be installed.

Remove the black shipping cap from the muffler port. *Save the cap in case you need to ship the compressor.*

Note: If the shipping cap is difficult to remove (it may form a vacuum during shipping), loosen the filler nut on the top of the motor to relieve pressure and then remove the cap. *Don't forget to tighten the filler nut after the muffler is installed!*

Place Filter on Intake Filter Outlet

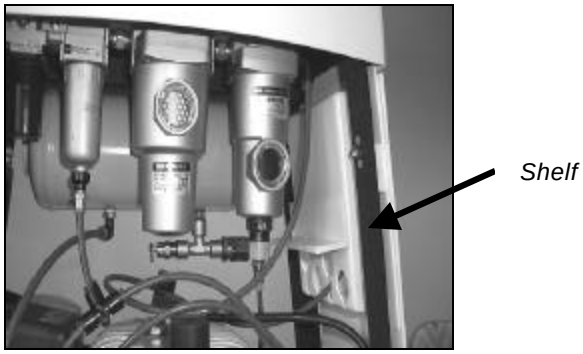
Locate the black plastic muffler in the plastic bag taped to the compressor motor. Place the muffler on the intake outlet port.

Caution: The compressor motor can be hot to the touch.

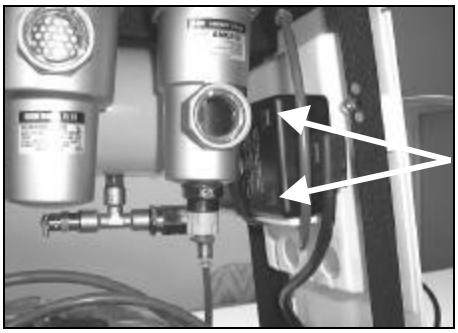
ote: Failure to remove the shipping cap and replace it with the muffler can damage the compressor.

Air Abrasion Power Supply (Optional)

The external power supply provided with your Mach 6/7/8 air abrasion unit can be mounted on a shelf inside the compressor for better cable management. The air abrasion unit can then be placed in the cradle on top of the compressor, and draw its power through the compressor power panel.

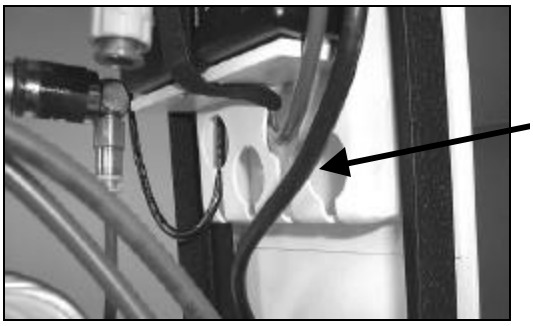


1. Place the power supply in the compressor. The end with the cable should go in first.
2. Drop the attached power supply output cable down into the compressor cabinet.
3. Set the power supply on the shelf, with the rubber feet pointing towards the inside of the compressor.



Rubber Feet

4. Feed the cord attached to the power supply through the plug hole closest to the opening where the panel was removed (below the power supply shelf) and into the outside cord tray.



Plug Hole

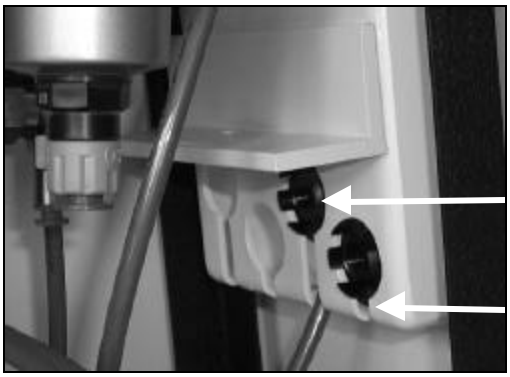
5. Pull out only as much cable length as you need to reach the air abrasion unit, which will fit in the cradle on top of the compressor.
6. Push the power supply all the way back on the shelf.
7. Secure the power supply to the compressor with the Velcro strap. Thread the strap through the buckle, fold it over, and press the Velcro together to hold the power supply in place.
8. Connect the internal power supply cord to the air abrasion power supply.

Install the Cable Pocket Pop-in Plugs

Use the cable pocket plugs (accessory kit) to hold your cables in place.

Note: It is easier to insert these plugs with both side covers removed.

1. Make sure the cable rests in the notch at the bottom of the hole.



Pop-in Plug

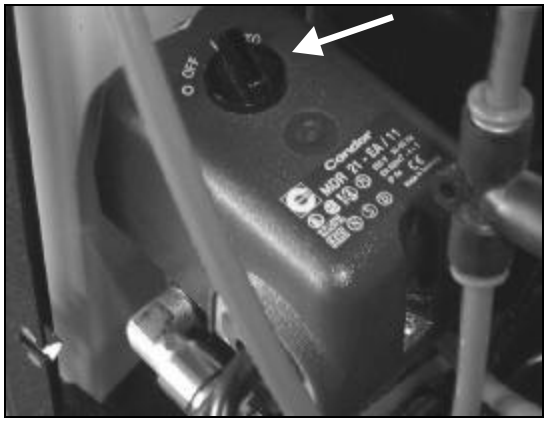
Notch

2. Push the plug on from the outside (through the cable pocket tray).

To remove a plug, push it out from the inside of the compressor.

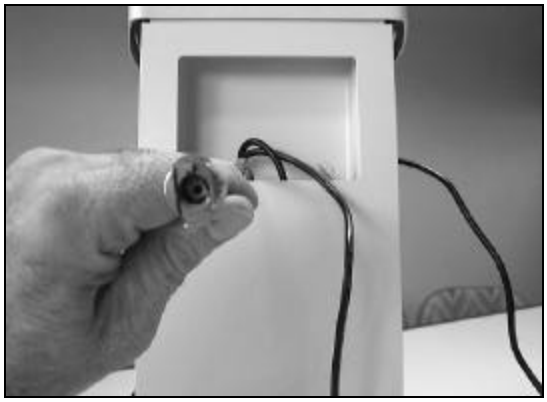
Internal On/Off Switch

Check the manual On/Off switch located on the left side of the compressor. It should be set to On/Auto.



Air Supply Hose (Mach 6/7/8)

The red air supply hose attached to the filtration system (ambient drier) supplies air to the air abrasion unit. The air supply hose should be in the pocket tray when the unit is shipped. If not, feed it through.



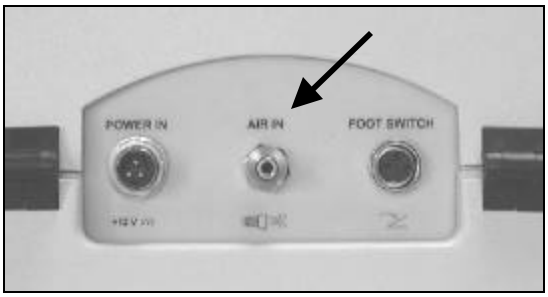
Make sure the air supply hose is free to be pulled further out without getting tangled or restricted when you replace the side panels.

Connecting the air supply to the Mach 6/7/8

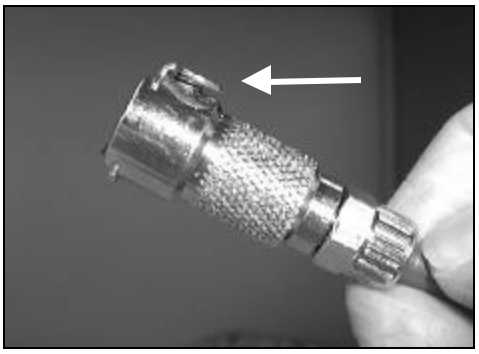
Refer to your Mach 6/7/8 manual to install and set up the air abrasion unit.

1. Set the Mach 6/7/8 in the cradle on top of the compressor.

2. Plug the red air supply hose from the compressor into the Air In plug on the Mach 6/7/8 connector panel.



3. Before connecting the hose, make sure the collar on the mating connector is pressed down. If it is not, you will not be able to seat the connector.



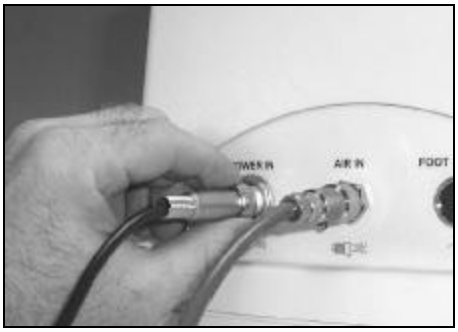
4. Press the connector in until you hear a click and the mating collar clicks into place.

If the hose is installed correctly, you should not be able to pull it off without pressing the connector collar.

Power Connections

Mach 6/7/8 Power Cord

Connect the Mach 6/7/8 power supply cord to the Power In plug on the air abrasion unit.

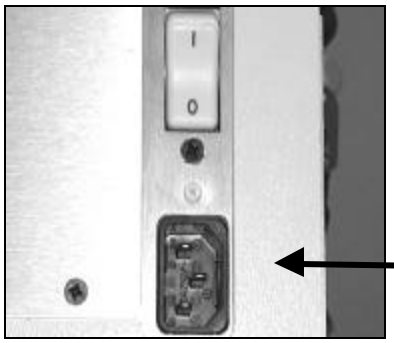


The connector is keyed. Insert the connector and thread it until it is tight.

Connect External AC Power

Caution: The side panels must be securely fastened to the compressor before applying electrical power to the unit.

Plug the power cord (accessory kit) into the AC connector on the compressor.



AC Power Connector

Cautions:

- Use only the medical grade power cord supplied with the unit.
- The compressor is voltage-dependent. Make sure that you are supplying the correct amount of voltage.
- Use only a properly grounded electrical outlet.

Power Connections

Footswitch Connections

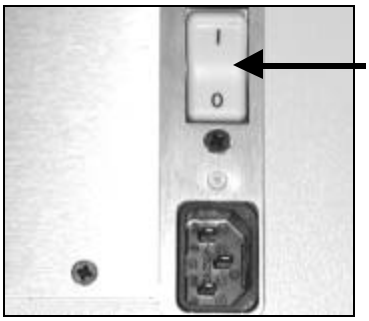
Refer to User's Guide supplied with your Welch Allyn Kreativ air abrasion units (Mach 6/7/8) for footswitch connections.

4. Using the System

Control Panel and Power Up

The control panel consists of the AC power input page 6 and the compressor On/Off switch. The On/Off switch also serves as a circuit breaker reset switch.

1. Press the switch On. The compressor should start running. If the system has been depressurized during shipment or turned off for an extended period, it will take a few minutes to pressurize.
2. Turn on the air abrasion unit and verify that it has sufficient air pressure.



Power Switch and Circuit Breaker

5. Inspection and Maintenance

Proper maintenance of the air compressor will ensure consistent performance of your air abrasion system.

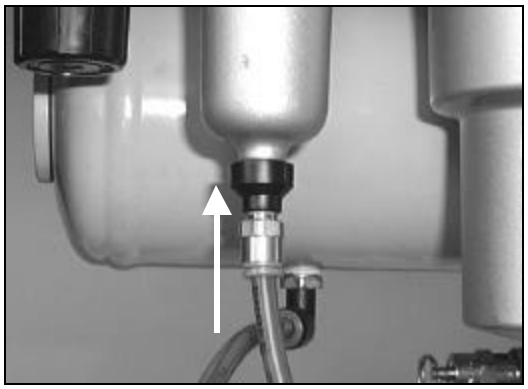
Note: There are no user-serviceable parts inside. Only qualified service personnel are intended to perform servicing inside the enclosure. (and not the operator)

Caution: Always remove electrical power from the compressor before performing any maintenance procedures.

External System Cut-Off Valve

Turn the valve clockwise to shut the air system off when you need to perform work inside the compressor.

Note: Bleed any extra pressure off by pressing up on the black collar on the bottom of the oil removal filter.



Collection Bottle

Inspect:	Monthly
Empty:	Monthly

1. Unscrew the bottle by turning it clockwise.

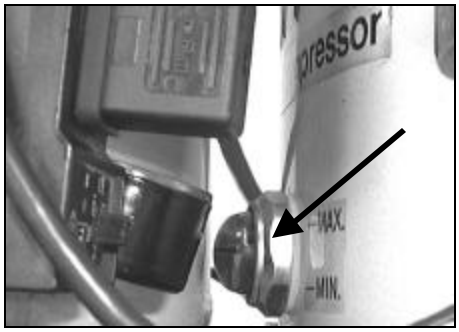
Note: Make sure the o-ring stays on the compressor fitting and does not come off with the bottle.

2. Empty the collection bottle.
3. Replace the bottle, making sure the o-ring is in place on the compressor fitting.
4. Screw the bottle on tightly, turning it in a counter clockwise direction.

Inspection Window Sight Glass

Inspect:	Monthly

The sight glass is located next to the pressure gauge.



Check the oil level in the sight glass.

Note: You may be able to see the oil bubble better if you gently shake the compressor.

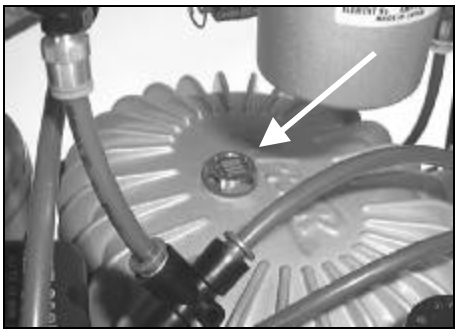
The oil level should be midway between the Min and Max markings on the compressor tank. If the level is below the Min point, you will need to add oil.

Adding Oil

Inspect:	Monthly
Add Oil:	As Needed
Change Oil	Every 2 years

The accessory kit includes an oil bottle and a foot-long piece of clear tubing.

1. Attach the tubing to the oil bottle, pushing it on as far as possible to prevent leaks.
2. Remove the oil fill cap from the compressor tank with a wrench (not included).



Note: Make sure the gasket under the cap does not get lost or damaged.

3. Insert the tube into the hole and start adding oil. Add a small amount of oil at a time.

Note: It takes time for the oil to move through the system and be visible in the sight glass. Wait a few moments to check the sight glass again.

4. Add oil as needed.

Note: Avoid over-filling! If you over-fill the tank you will need to drain the excess oil by inserting a tube into the tank and siphoning the extra oil out.

5. When the oil level is correct, make sure the gasket is in place and replace the cap.
6. Tighten the cap.

Visual Inspection

Muffler

Inspect:	Monthly
Replace:	Annual

The muffler must be clean and functioning correctly to prevent any aluminum oxide from getting into the system and damaging the motor. The muffler should be replaced every 12 months or if it gets dirty.

1. Remove the muffler from the top of the tank.
2. Look into the bottom of the muffler. If you see white material, it is in good condition. If you see oil or particles, the muffler should be immediately replaced.

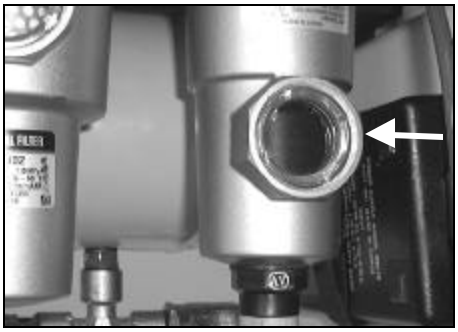
Cleaning Instructions

Clean the case and control areas with a soft cloth slightly moistened with a mild detergent or isopropyl alcohol. Do not use any type of abrasive cleaners, scouring powder or solvents on the case.

Ambient Drier Window

Inspect:	Monthly
Replace:	Annual

Check for moisture on a monthly basis by looking in the window on the ambient drier.



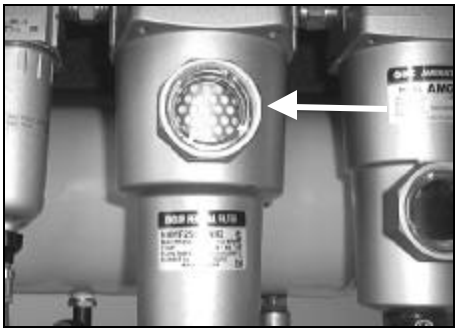
If moisture is visible in the window, call Welch Allyn / Kreativ Product Service.

Odor Removal Filter

Inspect:	Monthly
Replace:	Annual

If you see moisture or any other substance inside the inspection window of the odor removal filter, call Welch Allyn / Kreativ Product Service.

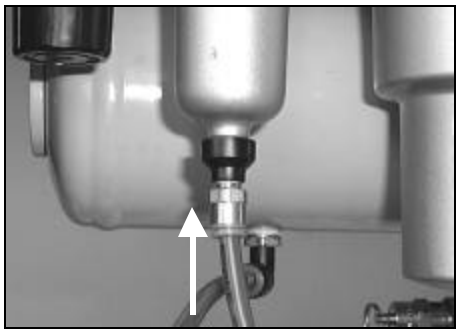
Note: The odor removal filter should only be replaced by an authorized Welch Allyn / Kreativ service center.



Oil Removal Filter

Inspect:	Monthly
Replace:	Annual

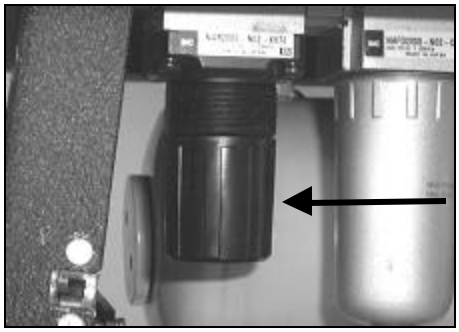
Oil will slowly collect in the oil removal filter and should be purged into the collection bottle.



Press up on the black collar just below the filter and hold it up for about 5 seconds.

System Regulator

The System Regulator is calibrated at the factory and is not a maintenance item.



6. Troubleshooting

Refer to the following table before you contact your Welch Allyn / Kreativ service representative.

Problem	Possible cause	Remedy
No Power	Power cord unplugged	Check plugs
	Main switch OFF	Check switch
	Compressor circuit breaker tripped	Reset compressor circuit breaker
	Main switch bad	Call local service rep representative
	Blown circuit breaker in the operatory	Check operatory power box
No air flow	Muffler shipping cap not removed and replaced with muffler.	Remove shipping cap and install muffler (page 4)
Compressor motor in thermal shutdown	Excess air leak	Call local service rep representative

If these instructions do not solve the problem, please contact Welch Allyn / Kreativ Technical Support at:

(888) 579-1478 (US Only)
(858) 621-6611 (Fax)

7. Warranty, Returns and Adjustments

Returns and Adjustments

Warranty claims must be made promptly and received by your nearest authorized Welch Allyn / Kreativ service representative during the warranty period. The liability of Welch Allyn / Kreativ, under valid warranty claims, is limited to repair or replacement at the purchaser's authorized Service Center or the purchaser's place of business, at the option of the authorized service representative. If it is necessary to return a product for repair or replacement, authorization for the return must first be obtained from the authorized service representative.

All products returned for examination or warranty repair must be sent insured via a means of transportation specified by the authorized service representative.

Welch Allyn / Kreativ, or its authorized service representative claims the sole responsibility for determining the cause of any instrument failure and the adjustments are subject to Welch Allyn / Kreativ approval.

Limited Warranty

Welch Allyn / Kreativ warrants the equipment to be free from defects in material and workmanship for a period of 12 months from the date of shipment. Damage due to failure of the customer to perform the required user/preventive maintenance is not warranted. Certain components having limited life expectancy (filters, mufflers, o-rings) are not warranted against normal wear and tear or customer damage. This limited warranty applies only to the original purchaser / user of the equipment.

The forgoing limited warranty is exclusive and in lieu of all other warranties, whether written, oral, or implied, and shall be purchaser's sole remedy and Welch Allyn / Kreativ's sole liability under contract or warranty or otherwise for the product.

Welch Allyn / Kreativ disclaims any implied warranty of merchantability or fitness for particular purposes. In no event shall Welch Allyn / Kreativ be liable for any incidental or consequential damages, or for any incidental or consequential damages arising out of, or in connection with, the use or performance of the product delivered hereunder.

Storage and Shipment

The Welch Allyn / Kreativ compressor has been designed for long term usage in normal dental office environments. If it is to be stored for any reason for a long period, it should be covered to protect it from adverse conditions. The area it is to be stored in should meet the Environmental Limitations Transport and Storage Requirements indicated in the Specifications section (page 13).

The unit has been designed for shipment by normal commercial carriers. Protective packaging should be used, and the original packing materials should be reinstalled for shipment. Shipping instructions must be

followed closely. The purchaser will be responsible for damage resulting from improper packing.

8. Specifications

Power	100-127 VAC, 60 Hz.,6.75A 220-240 VAC, 50 Hz., 3.75A
Air	1.2 cfm (34 l/min) at 120 psig (827 kPa)
Size	16” W x 23” H x 20.5” D (6.3 cm W x 9 cm H x 8 cm D)
Weight	75 lbs. (34 kg)
Environment	
Operational	Temp: 50°F (+10°C) to 104°F (+40°C)
	Relative humidity: 30% to 75%
	Pressure: 10.15 psi (70 kPa) to 15.3 psi (106 kPa)
Transport and Storage	Temp: -40°F (-40°C) to 158°F (+70°C)
	Relative humidity: 10% to 90%
	Pressure: 7.25 psi (50 kPa) to 15.3 psi (106 kPa)
Equipment Classification	**Class I** (requires an electrical earth ground) and ordinary protection against ingress of water Applied Part: Type B Mode of Operation: Continuous Operation

9. Recycling

All recycling must be in compliance with relevant national laws. Government authorized recycling centers must be used. There are no hazardous materials in this product.

Device

- All covers and housings should be recycled (steel or aluminum).
- Plastic parts should be removed from the metal pads before recycling (e.g., power inlet, power switch, etc.)
- Recycle oil according to your local, state, and federal policies.

Accessories

- All spare parts should be recycled as listed above.
- Parts that have been in contact with the patient should be cleaned and sterilized before disposal.

Packaging

The carton, all other plastics, and inserts should be recycled (cardboard, foam, polyethylene).

Environmentally Relevant Materials

Components	Materials
Enclosure, all brackets	Steel, Aluminum, ABS
Compressor lubricant	Lubricating oil

SAVE THE CARTON! The compressor and all accessories are shipped in a single container. The shipping container and packing materials should be retained in the event that the instrument has to be returned for service or repair.

Welch Allyn®
Kreativ®

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